

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1.-35. (Canceled)

36. (Currently Amended) A method of identifying an inhibitor of a glycosyltransferase that transfers a monosaccharide from a sugar nucleotide to an acceptor sugar substrate, wherein the glycosyltransferase comprises an active site comprising hydrophobic amino acids that interact with a sugar substrate, the method comprising contacting the glycosyltransferase, an acceptor sugar substrate, and a ~~donor~~ substrate sugar nucleotide with a hydrophobic, non-carbohydrate test compound that inhibits interaction of a sugar with hydrophobic amino acids in the active site of the glycosyltransferase and determining the degree to which the activity of the glycosyltransferase is inhibited in the presence of the test compound.

37. (Previously Presented) The method of claim 36, wherein the activity of the glycosyltransferase is determined using an antibody that is specifically immunoreactive with a product of the reaction catalyzed by the glycosyltransferase.

38. (Previously Presented) The method of claim 37, which is an ELISA format.

39. (Previously Presented) The method of claim 36, wherein the glycosyltransferase is expressed in a recombinant cell.

40. (Currently Amended) The method of claim 36, wherein the ~~donor~~ substrate sugar nucleotide or acceptor sugar substrate is labeled.

- 1 41. (Withdrawn) The method of claim 40, wherein the label is a radioactive
2 label.
- 1 42. (Withdrawn) The method of claim 41, which is a radioactive column
2 assay.
- 1 43. (Previously Presented) The method of claim 40, wherein the label is a
2 fluorescent label.
- 1 44. (Previously Presented) The method of claim 36, wherein the
2 glycosyltransferase is a fucosyltransferase.
- 1 45. (Withdrawn) The method claim 36, wherein the glycosyltransferase is a
2 sialyltransferase.
- 1 46. (Withdrawn) The method claim 36, wherein the glycosyltransferase is an
2 *N*-acetylglucosaminyltransferase.
- 1 47. (Canceled)
- 1 48. (Withdrawn) The method of claim 36, wherein the compound comprises
2 an aryl moiety.
- 1 49. (Previously Presented) The method claim 36, wherein the compound
2 comprises a heteroaryl moiety.
- 1 50. (Previously Amended) The method of claim 49, wherein the heteroaryl
2 moiety is selected from the group consisting of a thiophene, pyridine, isoxazole, phthalimide,
3 pyrazole, indole, quinoline, phenothiazine, carbazole, benzopyranone, and a furan group.

1 51. (Previously Presented) The method of claim 36, wherein the hydrophobic,
2 non-carbohydrate test compound comprises a member selected from the group consisting of a
3 heteroaryl moiety having from 5 to 16 ring members wherein from 1 to 3 ring members are each
4 independently selected from the group consisting of N, O and S wherein the heteroaryl ring
5 structure is optionally substituted, and an aliphatic ring structure having from 3 to 7 ring
6 members and is optionally substituted.